

FAS – Office of Global Analysis (OGA)
United States Department of Agriculture (USDA)
International Operational Agriculture Monitoring Program



February Report – Week 4

February 27th, 2009

1. The current outlook for winter grain production (wheat and barley) in MY 2009/10 in Iraq is potentially only minimally improved over last years crop, which was severely reduced owing to extreme drought conditions. Less than adequate rainfall and/or irrigation supply during the current winter season has resulted in similarly poor or worse vegetative crop conditions than last year over large regional areas. The poor crop establishment and vigor of the 2009/10 grain crop is expected to result in well below-normal grain production.
2. Season-to-date and monthly cumulative precipitation for MY 2009/10 is below normal for most of the rainfed and irrigated crop regions, except for portions of As Sulaymaniyah and southern provinces on the Iran border (Figure 1 & 2). The 3-day weather outlook forecasts between 10mm and 50mm of rainfall, but heavier accumulation around 100mm is needed to bring current conditions near normal (Figure 3). Rainfall accumulations over the next few months will be critical in determining the final outlook for crop yields in Iraq, with some time remaining for significant crop recovery.
3. MY 2009/10 NDVI in the northern rainfed provinces of Salah ad Din, At Ta'min, and As Sulaymaniyah showed moderate increases from the previous drought year of MY 2008/09 (Figure 4). NDVI in At Ta'min showed a proportional increase of 65%, whereas Salah ad Din increased by 73%, mostly owing to functional center pivot irrigation (Figure 5). As Sulaymaniyah, which has received the most rainfall of any provinces, showed a 92% increase from last year's drought devastated crop (Table 1). Image data were lacking over the provinces of Ninawa, Dahuk, and Arbil, but MODIS NDVI comparisons suggested that these provinces are potentially producing well-below normal (Figure 6).

A similar analysis conducted on the southern irrigated provinces revealed that there were almost negligible improvements in crop status in late February 2009, and in many cases the crop situation is worse than the previous drought year of MY 2008/09 (Figure 7). MODIS NDVI comparisons from previous near-normal crop seasons also suggested that the southern irrigated crop is potentially producing well-below normal (Figure 8).

The near equal proportions of change in cropland NDVI for some of the southern provinces could be attributed to a 50/50 fallow land cultivation practice for soil moisture recovery, but could also be an indication of insufficient irrigation. Regardless, a high proportion of decreased NDVI when compared to last year's drought affected crop indicates little potential for overall increase in regional grain production (Table 2).

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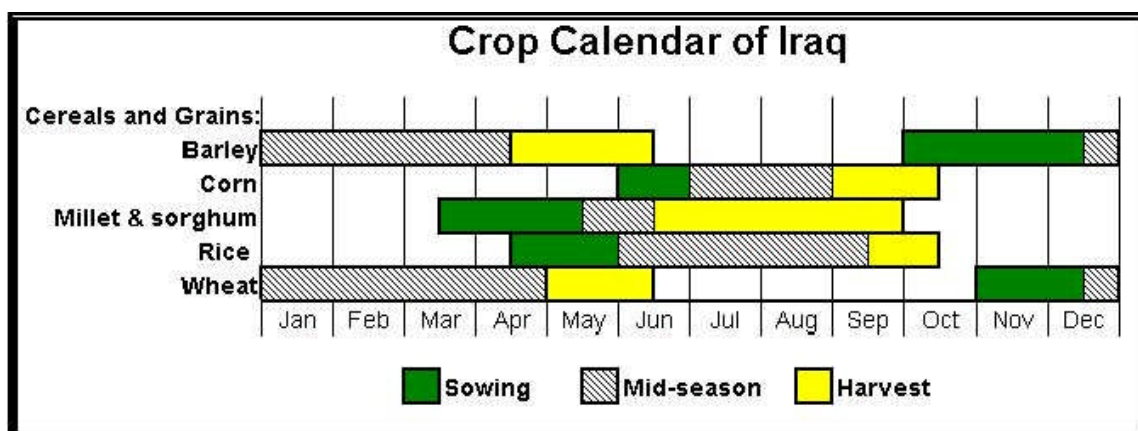


Table 1: Change in NDVI for northern provinces.

Change in NDVI: MY 2009/10 vs. MY 2008/09

REGION	PROVINCE	DECREASE	INCREASE	% National Wheat*	% National Barley*
North	As Sulaymaniyah	7.58%	92.42%	1%	8%
	Salah ad Din	27.11%	72.89%	5%	1%
	At Ta'min	35.45%	64.55%	10%	3%
				16%	12%

* denotes typical contribution to national total production

Table 2: Change in NDVI for southern provinces.

Change in NDVI: MY 2009/10 vs. MY 2008/09

REGION	PROVINCE	DECREASE	INCREASE	% National Wheat*	% National Barley*
	Karbala	89.53%	10.47%	< 1%	0%
	Baghdad	45.79%	54.21%	4%	< 1%
	Babil	45.97%	54.03%	4%	2%
	Wasit	43.28%	56.72%	12%	5%
	Al Qadisiyah	55.07%	44.93%	10%	11%
	Dhi Qar	46.65%	53.35%	4%	8%
	Maysan	55.84%	44.16%	5%	7%
				39%	33%

* denotes typical contribution to national total production

Missing provincial statistics is due to inadequate satellite imagery coverage during February 2009.

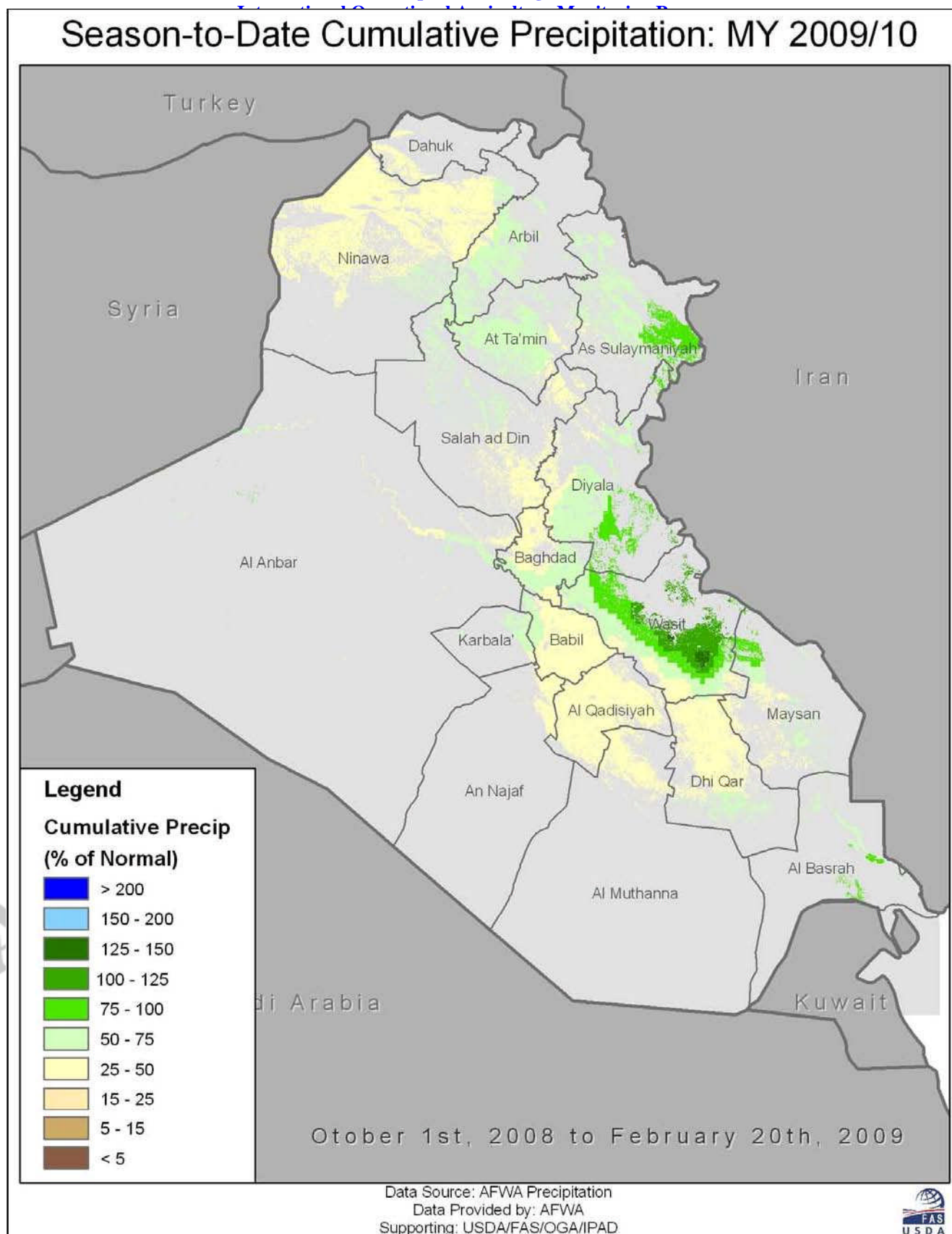


Figure 1: Season-to-date cumulative precipitation: MY 2009/10.

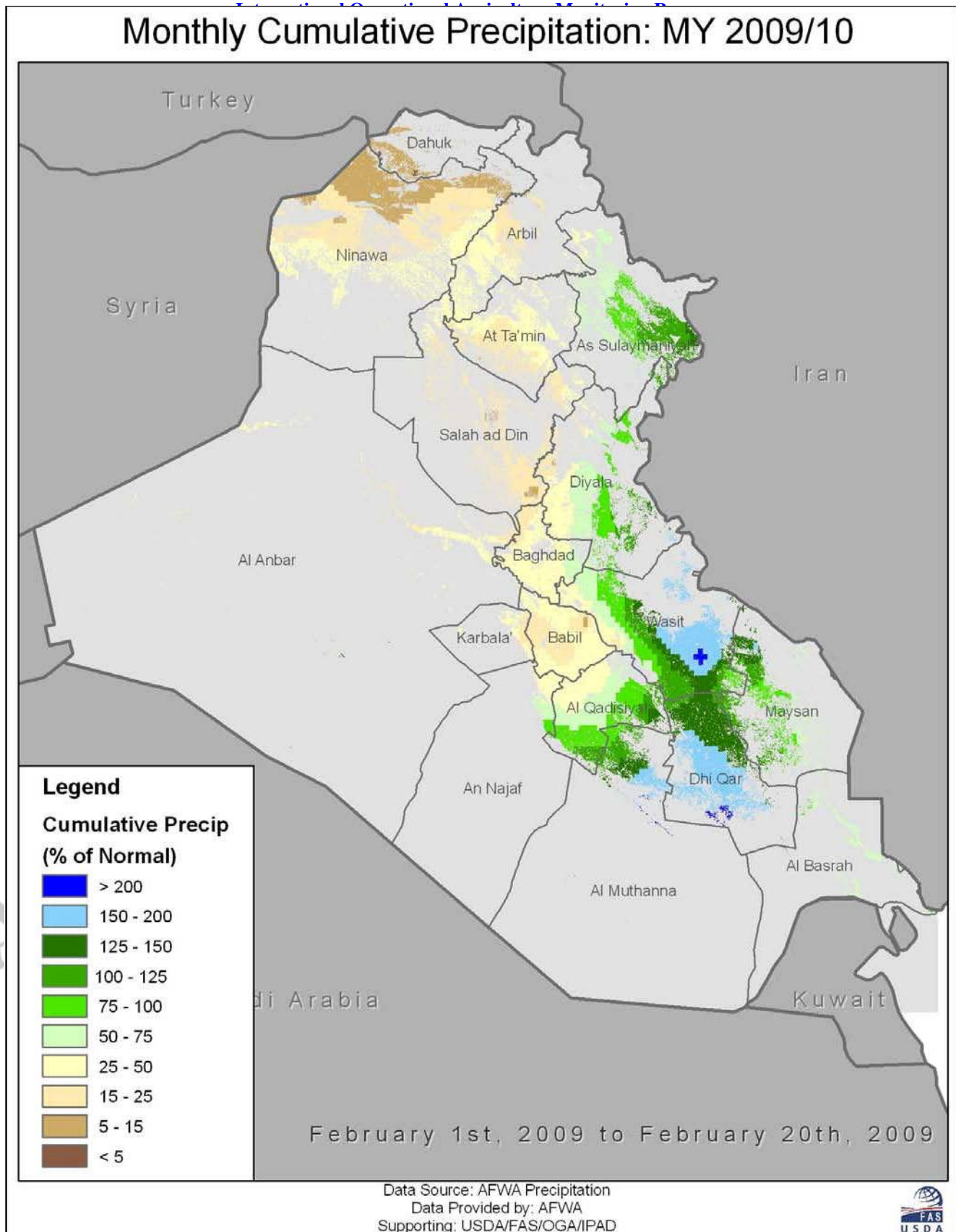


Figure 2: Monthly cumulative precipitation: MY 2009/10.

3-Day Precipitation Outlook: February 27th, 2009

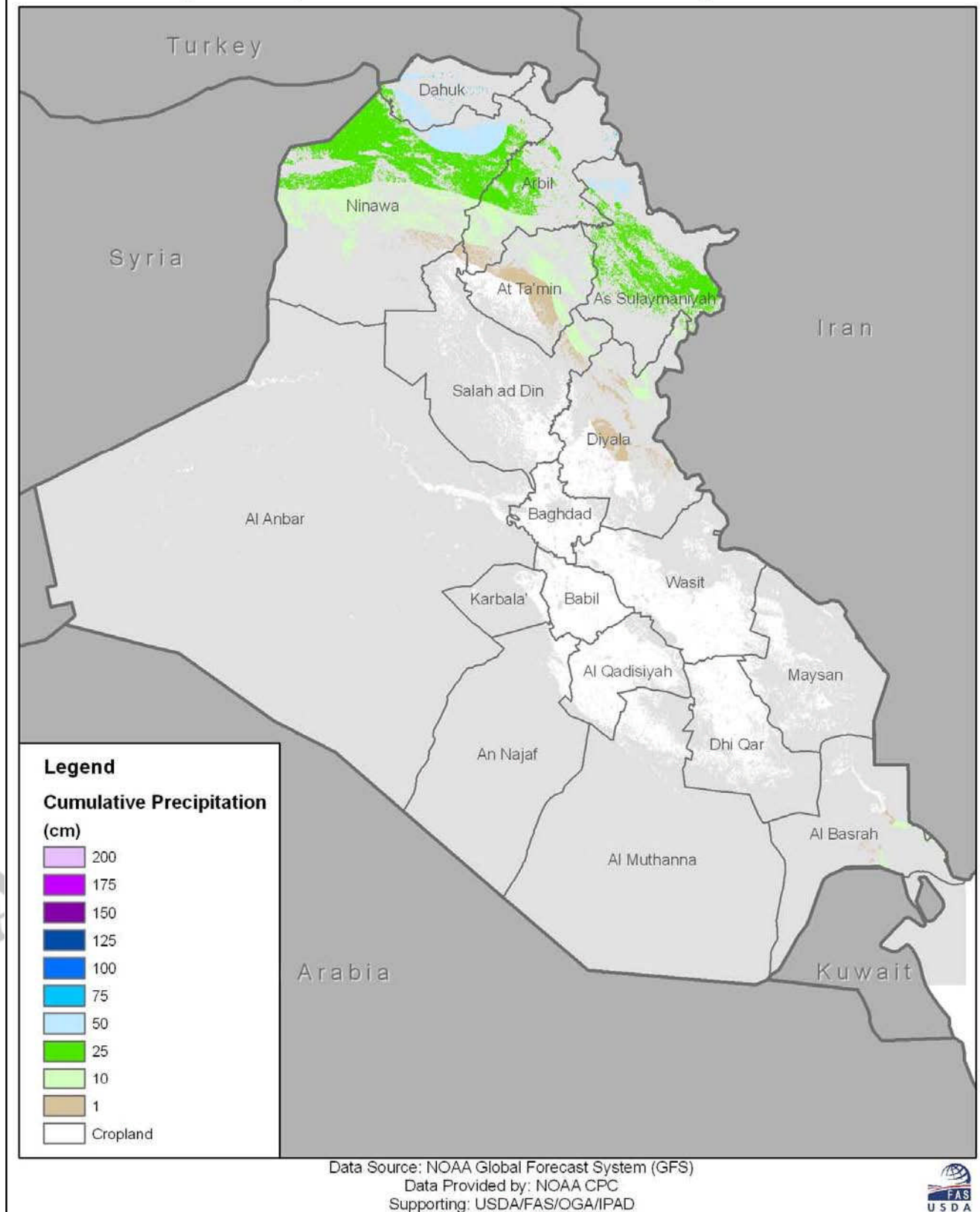


Figure 3: Three-day cumulative precipitation outlook as of February 27, 2009.

NDVI Change Analysis: February 2009 vs. February 2008

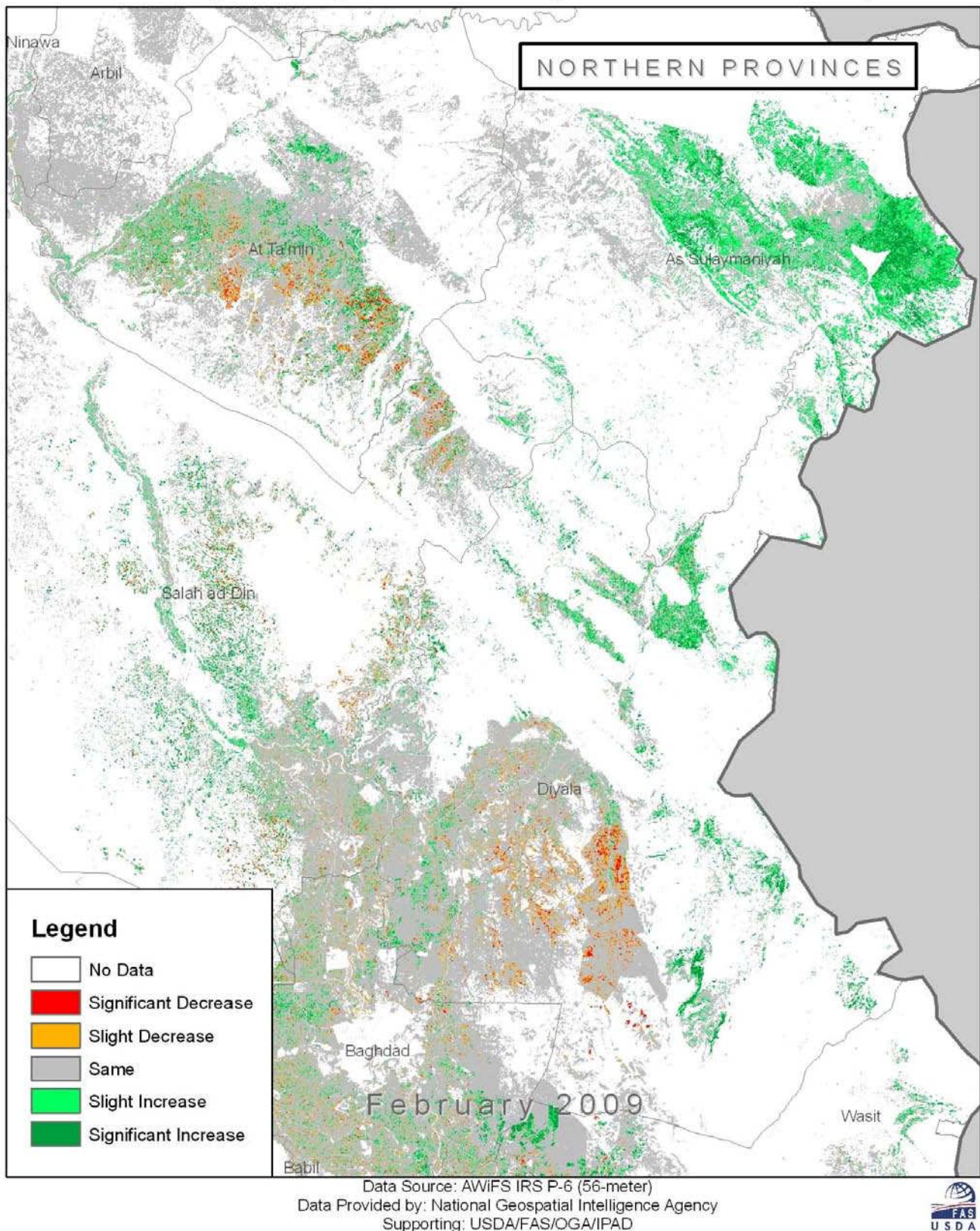


Figure 4: NDVI comparison for the northern provinces: MY 2009/10 vs. 2008/09.

NDVI Change Analysis: February 2009 vs. February 2008

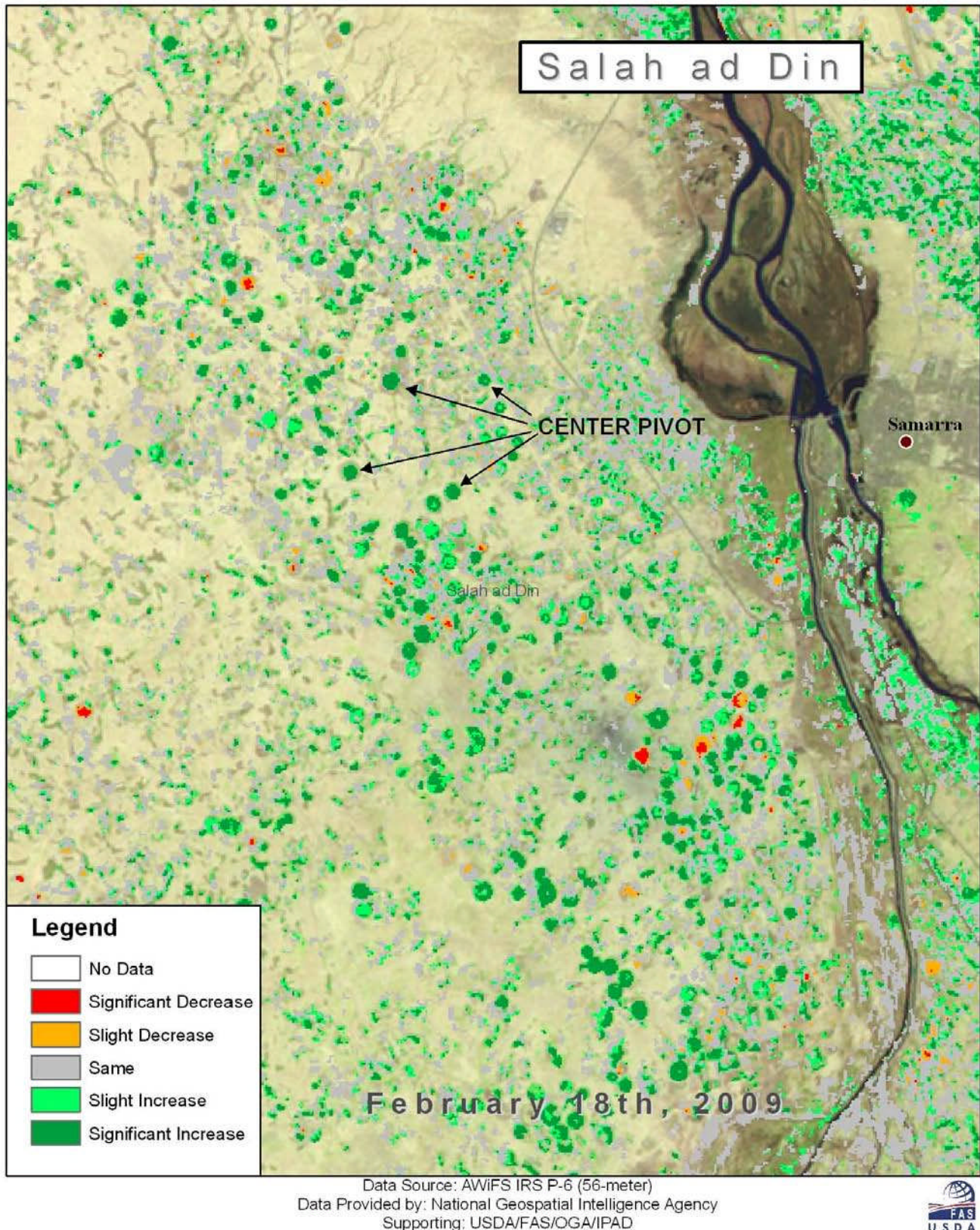


Figure 5: Change in NDVI for Salah ad Din: MY 2009/10 vs. 2008/09.

MODIS NDVI Comparison: MY 2009/10 vs. MY 2005/06

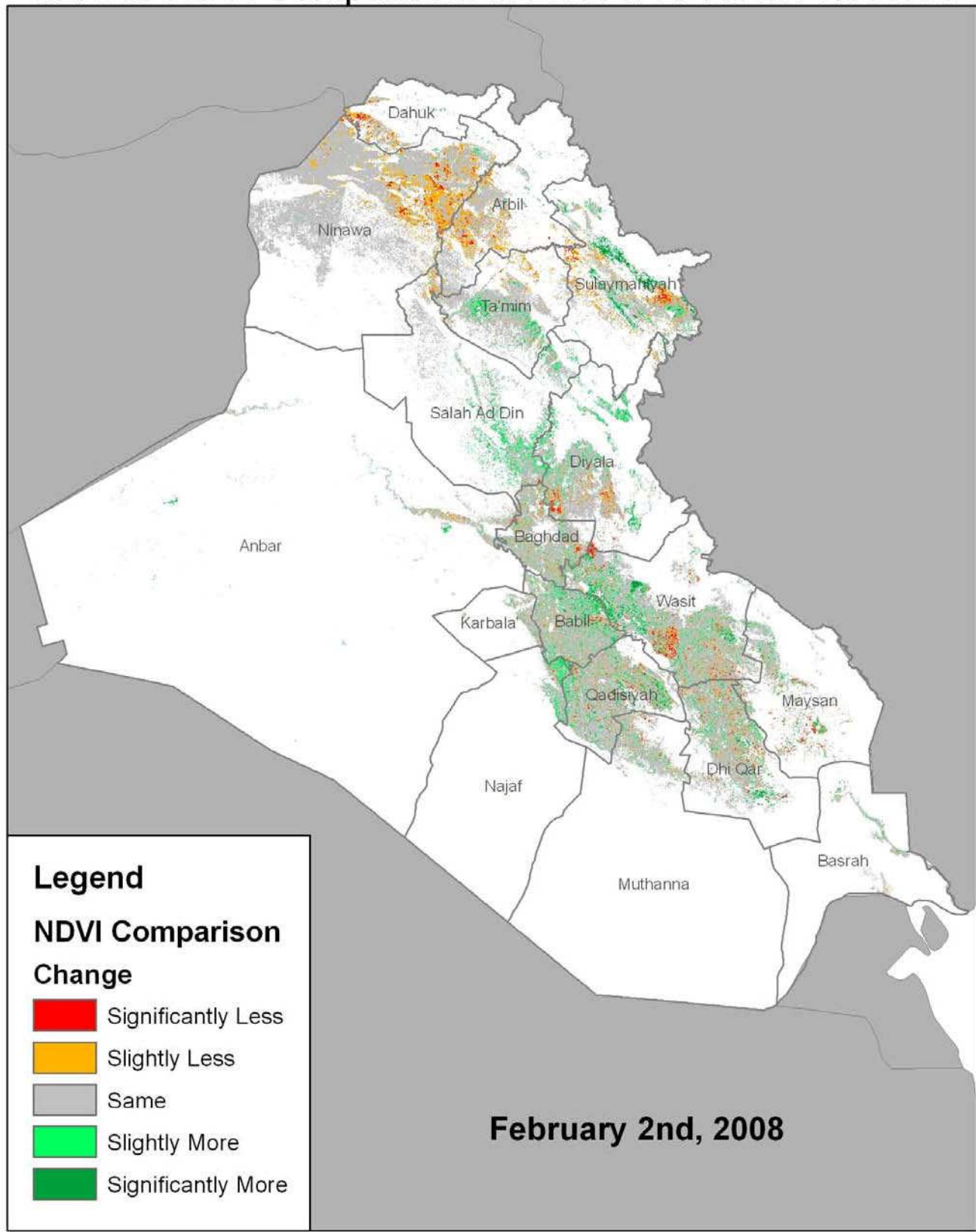


Figure 6: MODIS revealing significantly lower MY 2009/10 NDVI in the provinces of Ninawa, Dahuk, and Arbil.

NDVI Change Analysis: February 2009 vs. February 2008

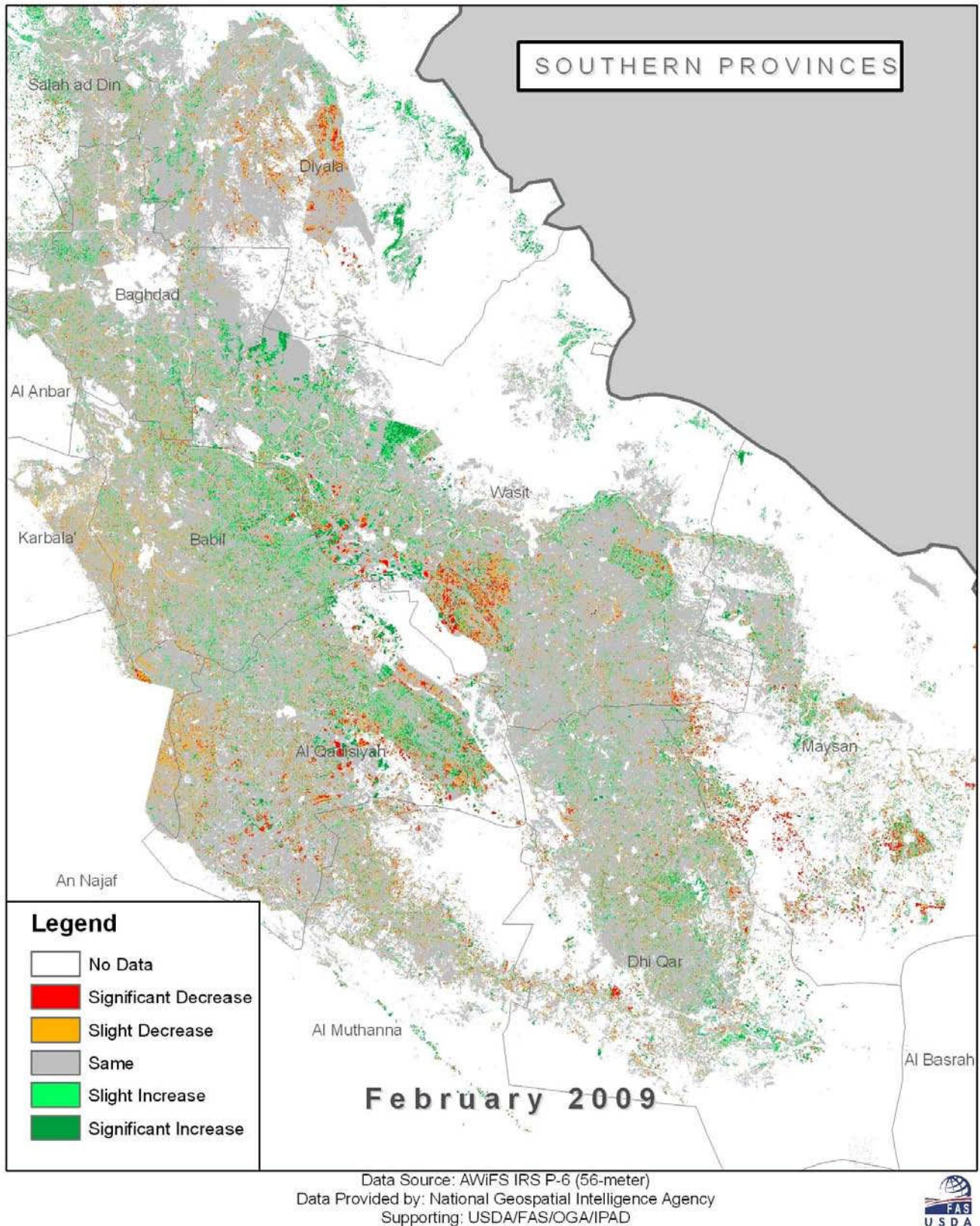


Figure 7: NDVI comparison for the southern provinces: MY 2009/10 vs. 2008/09.

MODIS NDVI Comparison: MY 2009/10 vs. MY 2006/07

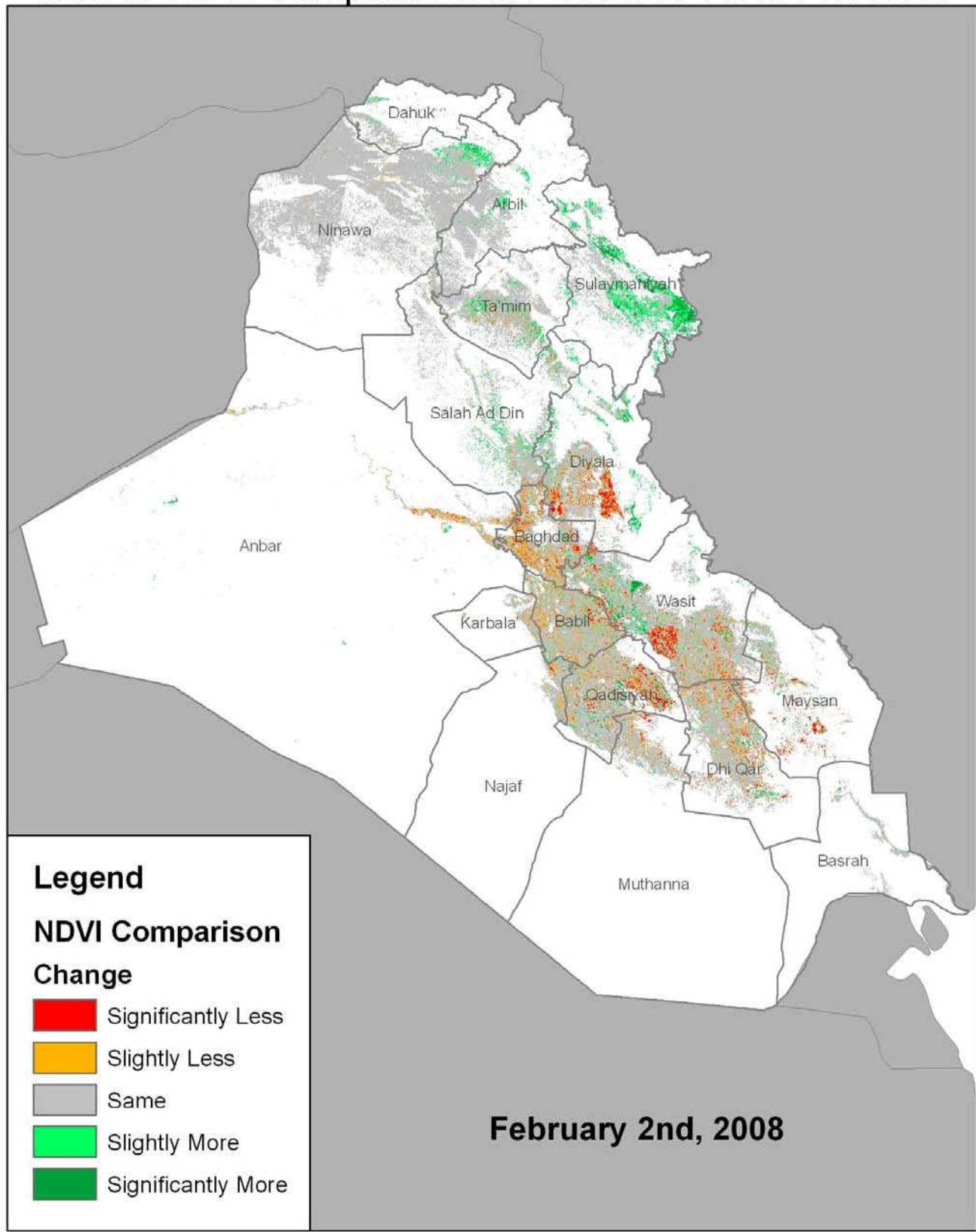


Figure 8: MODIS revealing significantly lower MY 2009/10 NDVI in most of the southern provinces.

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